

STRATEGIES FOR SUCCESS II

**Enhancing Academic Performance
and Health Through
Nutrition Education**



A Resource Manual for Educators and Child Nutrition Programs

DRAFT

**California Department of Education
Nutrition Services Division
Sacramento, CA**

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STRATEGIES FOR SUCCESS II

CONTENTS:

ACKNOWLEDGMENTS	5
INTRODUCTION	
Purpose of This Document.....	7
How to Use This Document.....	9
Section Organization.....	10
Grade Level Highlights	11
Sequential Nutrition Education Opportunities for Children.....	12
About Nutrition Education Specialists	13
Feature Story: <i>Gardens, Gardens Everywhere!</i>	14
BUILDING THE TEAM	
First Person: <i>The Domino Effect</i>	20
Overview	21
Stories and Strategies for Building the Team	22
More Strategies to Try	26
Resources	28
ENHANCING THE CURRICULUM	
First Person: <i>A Workshop Truly for Teachers</i>	32
Overview	33
Stories and Strategies for Enhancing the Curriculum.....	34
More Strategies to Try	39
Resources	40
STRENGTHENING TEACHER AND STUDENT SKILLS	
First Person: <i>Pyramid Parties</i>	44
Overview	45
Stories and Strategies for Strengthening Skills	46
More Strategies to Try	52
Resources	53
LINKING CLASSROOMS AND CAFETERIAS	
First Person: <i>The Potato Project</i>	56
Overview	57
Stories and Strategies for Linking Classroom and Cafeteria	58
More Strategies to Try	66
Resources	67
APPENDICES	
A. Shape California Model Nutrition Education Grantees, 1998-2000	89
B. Design Group Participant List	92
C. References	97

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INTRODUCTION

As educators, you recognize the link between nutrition and learning in the faces of well-fed, well-behaved, engaged students—and you want to make this true for all students. However as a teacher, you can’t imagine teaching one more subject such as nutrition education, even though you know that your students need to eat better. Or, working in child nutrition, perhaps you wish you could help kids learn about healthy eating, yet you lack the assistance needed. And, as an administrator, you observe the impact of nutrition on student achievement and behavior, and wonder how you could support healthy lifestyles at your school.

Strategies for Success II: Enhancing Academic Performance and Health Through Nutrition Education describes how all educators can make a positive difference in students’ health and academic achievement. It contains something for everyone:

- For teachers — ideas and resources you can use to teach core subjects and help students practice needed skills and standards, using nutrition connections such as school gardens, classroom cooking, lesson plans, and more.
- For child nutrition program staff — real-life examples of tools and activities to help you accomplish your mission while linking more effectively with fellow members on the education team.
- For administrators and district-level department staff — stories of how other administrators have rallied their support for nutrition education efforts that improve academic outcomes and benefit the entire school.

You can create a school where healthy kids are ready to learn by working step by step and with a team effort. While this document contains much information, select from it what is most useful to you. In the words of teachers and child nutrition staff who have resisted the temptation to get overwhelmed, “Don’t worry about doing it all, but work toward doing what you can!”

Purpose of This Document

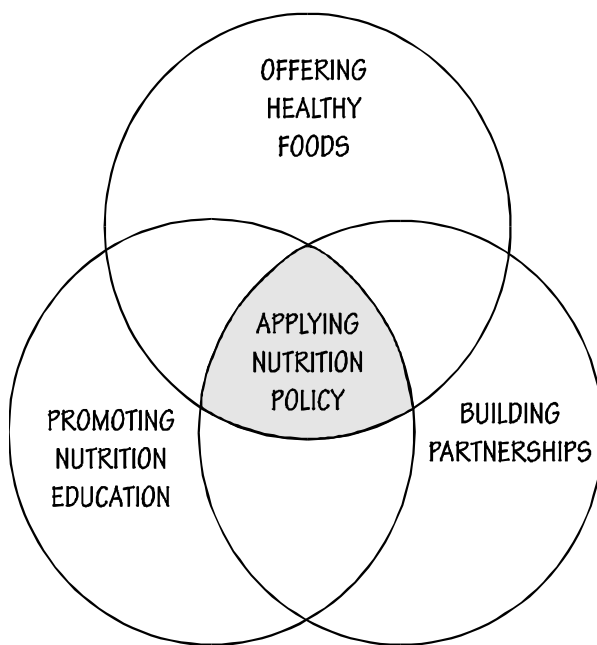
Anyone working in or with schools, preschools, and child care settings (pre-kindergarten through grade 12)—from state level to site level—is invited to use this document to increase and improve children’s health and academic success through nutrition education.

Strategies for Success II: Enhancing Academic Performance and Health Through Nutrition Education is designed to showcase implementation strategies for sustainable nutrition education programs that are comprehensive, sequential, and culturally relevant for California’s children and youth. What do we mean by this?

“Nutrition education [in schools] is consistently considered a low priority because, although parents are concerned about nutrition, they do not voice their concerns to school administration. Because of the lack of public demand, and because there is already insufficient time and money for core academics, there is little institutional support for nutrition education.” –
SHAPE California Needs Assessment

Strategies for Success II will help you develop programs that are:

- Sustainable—planned into the ongoing curriculum at all grade levels and carried out over time, rather than isolated activities or one-time, special events.
- Comprehensive—part of overall health education efforts that focus on understanding the relationship between personal behavior and health.
- Sequential—provides opportunities to learn about healthful eating from preschool through secondary school, with attention paid to scope and sequence.
- Culturally relevant—meaningful for the variety of students represented in our schools. This may mean adapting strategies presented here to the specific needs of your site’s population.
- For California’s children and youth—from small to large districts, from the Oregon to Mexican borders, strategies are featured at all grade levels.



The SHAPE California Approach

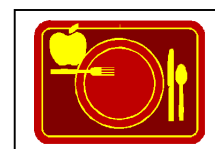
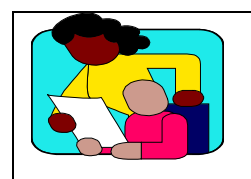
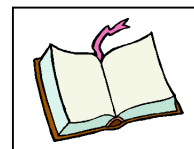
This manual will help schools and child care agencies implement the comprehensive approach of SHAPE California (Shaping Health As Partners in Education), diagrammed at left, with a focus on Promoting Nutrition Education. Strategies for Offering Healthy Foods have been field tested and documented in *Strategies for Success: A Resource Manual for SHAPE California Child Nutrition Programs*, 1995 (see Appendix D). Both these documents incorporate Building Partnerships and Applying Nutrition Policy within the strategies they illustrate.

Before you jump into this document, we’d like to clarify the definition of the term “strategy” used throughout. A strategy is not a step-by-step directive, procedure or formula for accomplishing nutrition education or anything else. Rather, it is more like a support, idea or suggestion for you to use as you discover what works in your situation. One strategy may not work as well in one school district as in another. We hope you find the stories and information herein useful and inspiring to develop your own strategies to “make nutrition education happen.”

How to Use This Document

As you begin to use this resource manual, “Where do I start?” may be your first question. Take your cues from the sequence of these sections described below. Know that each section is not exclusive of the others, so you do not need to approach them only in this sequence. However, taking steps toward building a strong team (Section 1) and useful curriculum (Section 2) will prepare you better to strengthen teacher and student skills (Section 3), while linking classroom and cafeteria nutrition education efforts (Section 4).

1. **Building the Team**—One person or department cannot achieve comprehensive nutrition education. Nor can schools achieve it alone; parents and community members also have important roles. Reaching nutrition education goals requires a diverse, committed team fully aware of the positive impact nutrition has on academic success. This section illustrates ways that schools have increased the awareness and commitment of all stakeholders to build an effective team – and the tremendous benefits this has produced.
2. **Enhancing the Curriculum**—In today’s schools, teachers are held accountable to specific academic standards in core subjects: language arts, math, science, and history-social science. When the curriculum they use incorporates nutrition content and skills into core subjects, teachers are empowered to meet the standards **and** help meet students’ nutrition needs. This section includes tested strategies for evaluating current teaching materials and developing new ones as needed.
3. **Strengthening Teacher and Student Skills**—Most teachers need training to feel comfortable and competent to teach nutrition, especially in ways that integrate nutrition concepts and skills into core subjects. Also, nutrition education needs to focus on developing students’ skills in decision-making as well as other actions that promote health and academic success. This section gives examples of ways schools are strengthening both teacher and student skills.
4. **Linking Classrooms and Cafeterias**—Truly comprehensive nutrition education efforts include classroom instruction as well as cafeteria-based activities. In this way, the cafeteria (or equivalent) becomes a learning laboratory where students can link what they know with what they do. Through true stories and suggestions from the trenches, this section portrays numerous ways to enhance this link.



In all four areas described above, building on your strengths is key to success. Always seek to connect with others who are already promoting and implementing nutrition education. Your efforts to build and maintain partnerships will pay off in reaching your long-term goal of ensuring students’ academic achievement.

Section Organization

Each section is organized to help you find resources you can use to replicate or forge your own success:

- **First Person account**—Stories from different perspectives are presented that demonstrate nutrition education at its best.
- **Overview**—This background information aims to give you an idea of what is in the section. It also reminds you of things to keep in mind when planning nutrition education efforts. For example, when building support for nutrition education, keep in mind the values of different stakeholders in your school. When linking classroom and cafeteria efforts, remember the varying perspectives of education team members.
- **Stories and Strategies**—“Success stories,” or real-life snapshots of effective nutrition education, are at the heart of each section. Try these strategies in your situation, adapt them as needed, take note of the other keys to success offered here, and you’re on your way to nutrition education that works. Most of the strategies shared here were contributed by the SHAPE California Model Nutrition Education (MNE) grantees who were funded to develop and field-test comprehensive, sequential, and culturally-relevant nutrition education strategies.
- **More Strategies to Try**—We hope you’ll find inspiration among these additional strategies. Suggested by MNE grantees and others involved in developing this document, they are based on educators’ knowledge and experience but may not have been recently field-tested in California schools.
- **Resources**—We’ve listed some existing materials to help carry out the section’s recommendations, plus how/where to get them.

Grade Level Highlights

The following icons indicate strategies used with specific age groups. Recognizing that different educational strategies are effective at different stages of cognitive and social development, these icons are used throughout each of the four sections that follow:

PK	Preschool (Pre-Kindergarten)
EE	Early Elementary (Kindergarten – Grade 3)
UE	Upper Elementary (Grades 4 – 6)
MS	Middle School (Grades 6 – 8)
HS	High School (Grades 9 – 12)

The guidelines regarding the appropriate sequence of concepts, strategies and skills in the table on the next page are not hard and fast, nor are they comprehensive. They are designed to help you develop a framework for planning sequential nutrition education opportunities for children.

For more information on nutrition competencies, please refer to *Nutrition Competencies for California Children Pre-Kindergarten through Grade 12* (California Department of Education), listed in Appendix D. These ten nutrition competencies were designed to guide school districts and agencies in promoting effective, sequential and comprehensive nutrition education. The document includes including minimum proficiencies/skills, learning activities, and curriculum links by grade groupings for all ten competencies.

Experience demonstrates that, with all age groups, students are more likely to adopt healthy eating behaviors when nutrition education:

- Requires their participation and is fun!
- Emphasizes the positive, appealing aspects of healthy eating patterns.
- Presents the benefits of healthy eating in the context of what is already important to students.
- Provides repeated opportunities to taste healthful foods in a supportive environment, including positive modeling.

Sequential Nutrition Education Opportunities for Children

Preschool

Concepts & Strategies	Sample Cooking Skills
<ul style="list-style-type: none"> • Basic connection between food and body • Sensory experiences with food • Hand washing 	<ul style="list-style-type: none"> • Stirring • Simple measuring • Rinse and tear lettuce leaves • Squeeze lemons • Slice bananas

Early Elementary

Concepts & Strategies	Sample Cooking Skills
<ul style="list-style-type: none"> • Involve parents through take-home activities • Connection between food and health • Introduce Food Guide Pyramid and food grouping methods • Simple diet assessment using food groups • Encourage personal responsibility in making food choices • Incentives and reinforcements for healthful eating behavior • Sanitation concepts 	<ul style="list-style-type: none"> • Chopping soft foods • Grate cheese • Open cans • Wash vegetables • Measuring • Knead dough • Crack eggs

Upper Elementary

Concepts & Strategies	Sample Cooking Skills
<ul style="list-style-type: none"> • Involve parents through take-home activities • Assessment of food habits, noting portion sizes • Introduce media and social influences on eating behavior • Introduce label reading • Discuss choices available when eating out • Use food groups to plan meals • Role-play activities to enhance decision-making skills • Incentives and reinforcements for healthful eating behavior • Discuss how child can positively influence family food behavior • Sanitation skills 	<ul style="list-style-type: none"> • Learn to use small appliances such as microwaves, blenders • Chop vegetables • Learn to use stove and oven • Follow a recipe • Plan and prepare a simple meal

Middle and High School

Concepts & Strategies	Sample Cooking Skills
<ul style="list-style-type: none"> • Peers as role models; peer-led instruction • Assessment of food habits using advanced methods of nutrient analysis (food groups, RDA's and Dietary Guidelines) • Practice skills on responding to media and social influences on eating behavior • Make healthful choices based on label information • Assess and choose a healthy fast food meal • Use food groups to plan and prepare meals • Role-play activities to enhance decision-making skills • Goal setting with self-determined incentives/reinforcements • Understand the relationship between nutrition and future health (e.g. heart disease, osteoporosis) • Sanitation skills 	<ul style="list-style-type: none"> • Plan and prepare a nutritionally balanced meal for the family.

Adapted from *Feeding Kids Newsletter* (24 Carrot Press, www.nutritionforkids.com)

About Nutrition Education Specialists

Some of the strategies described herein feature activities coordinated by a nutrition education specialist or similar person. A number of school districts have employed or contracted with nutrition education specialists to help advocate for and implement nutrition education in classrooms and cafeterias.

While there is no consistent job description for nutrition education specialists, two models seem to be functioning currently in California districts:

- One model, usually a registered dietitian, operates within the child nutrition/food services department while partnering with teachers and administrators. Duties usually include a combination of menu planning, nutrient analysis, professional development, nutrition education, outreach/marketing activities, and grant-writing.
- Another model, often a credentialed teacher on special assignment, is based in the curriculum department and partners with child nutrition professionals. Responsibilities include staff development for teachers and child nutrition staff, classroom instruction, grant-writing, and community and parent outreach.

Although these two approaches to nutrition education specialists differ, each approach produces an invaluable team player in making nutrition education happen for their district's students. Larger districts (enrollment over 34,000 students) are more likely to employ a specialist on staff. Smaller districts are more likely to contract with a consultant, either a teacher or a registered dietitian with experience in school nutrition programs. Some smaller districts may even decide to pool their resources and hire a nutrition education specialist they can share.

In either case, districts have used grant funds or adjusted their regular budgets to support a specialist in the short- or long-term, reaping many benefits as a result. To find out more about the advantages of nutrition education specialists, contact the districts who have them, including the following SHAPE California school districts:

- Elk Grove Unified School District
- Hawthorne Elementary School District
- Montebello Unified School District
- Sacramento City Unified School District
- San Juan Unified School District

For a current listing of SHAPE California districts, see our website at www.cde.ca.gov/nsd/nets. Click on SHAPE California and then Participant List.

Feature Story—Gardens, Gardens Everywhere!

The story featured below gives an example of how one school district has tied together many of the themes explored in this document. While their achievements are exemplary, we wish to emphasize that, since each school district or agency is unique, no one method of promoting nutrition education is “perfect” or works for everyone. We hope you find inspiration and insight in all the stories within this manual.

* * * * *

Vacaville is a growing town (population 92,000) at the eastern edge of California’s Coast Range. Although located on Interstate 80 between two major metropolitan areas (San Francisco and Sacramento), Vacaville itself is surrounded by rural areas and is, historically, a ranching and farming community. Vacaville Unified School District (VUSD) includes 18 schools and enrolls nearly 15,000 students in grades K-12. With funding in addition to their MNE grant, and over a period of five years, VUSD has embraced the concept of “a garden in every school” to make nutrition education happen.

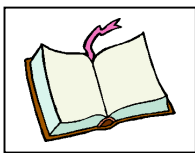
Nutrition Instruction Council

To build an effective team, VUSD staff felt that a district-wide committee would be key to maintaining effective, efficient communication. Eight school sites were already involved in SHAPE California efforts, mostly related to food services. A district-level Nutrition Instruction Council (NIC) was designed to sustain efforts at these schools, incorporate a nutrition education focus, and provide an organizational model when more schools came on board.



NIC members were recruited as part of the grant application process, and include the Deputy Superintendent of Educational Services, the Child Nutrition Director, teachers, child nutrition program staff, and the district’s Staff Development Coordinator. The Instructional Council is a familiar district structure for addressing curriculum, and as such was readily accepted by NIC members and supporters. Meeting four or five times a year, NIC members coordinate all SHAPE activities and nutrition curriculum development.

Three years since it was formed, and despite staff changes, the NIC has remained intact and proved its worth. The Deputy Superintendent of Administrative Services is convinced that the benefits of positive partnerships built within the NIC far outweigh any costs incurred. As a result, district funds now sustain the council’s expenses, including staff stipends (mentioned later).



School Gardens Teach Math, Science, and Much More

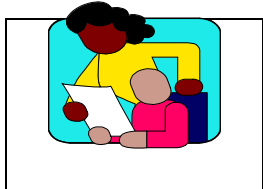
VUSD teachers at two schools have enhanced their existing curriculum with garden and nutrition information in a number of ways, then shared it with other educators via the Nutrition Instruction Council.

Teachers at Markham Elementary School developed a nutrition/garden curriculum, including lessons in science, health, language arts, and math. They culled materials from reliable sources or developed their own. NIC members then worked with district Education Services staff to assign objectives to these lessons and connect them with the district's scope and sequence for language arts and for nutrition.

Students of all grade levels participate in the Elmira Elementary school garden. One teacher takes his second-grade class to the garden at least weekly, where they can decide to "read or weed." An ongoing art project for his class is making signs to designate the various crops. All students in first, second, and third grades rotate through the garden to obtain basic nutrition and gardening skills and information. They plant, maintain, and weed vegetables in a raised bed assigned to their class. Fourth grade classes used numerous math skills to construct the garden site.

This school's garden experience reaches beyond the classroom. The child nutrition manager gives students tours of the kitchen. She also works with students and parent volunteers to have pumpkins grown in the garden made into pumpkin pies and donated to the local food bank. A community volunteer makes gardening tools. Last year students sold tomatoes to help support the garden, and this year parents are already asking when they will go on sale. Teachers wanted the garden to be more than a place to grow plants. They wanted it to be a place for students and teachers to learn not only about math and science, but a place to read, think, and just be.

Learning in the Garden



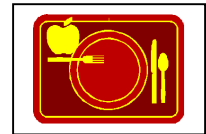
To help students and teachers strengthen their nutrition-related skills, VUSD used multiple strategies. First, they partnered with experts at nearby University of California, Davis, where teachers and child nutrition program staff attended workshops to learn about gardening methods, composting, and nutrition-garden classroom activities. (Child nutrition staff attended on their own time, earning professional growth credits toward additional pay, and most teachers attended on adjunct duty.) Next, a doctoral candidate in nutrition developed and modeled nutrition lessons for elementary teachers and provided in-service training. Several of the lessons involved classroom cooking and used nutrition theme kits (described below), cooking carts and garden produce.

In addition to gaining these teaching materials and skills, teachers at each school began working in teams to coordinate their efforts and link with those of the cafeteria manager. Each school's Nutrition Resource Teacher also shared ideas and teaching techniques at NIC meetings. To outline roles and responsibilities for teachers, NIC members modeled the Nutrition Resource Teacher program description after the district Mentor Teacher Program, and provide a small annual stipend of \$450.

To connect it all, students work in the garden and use what they produce in classroom lessons. They provide much of their harvest to the cafeteria, and collect cafeteria produce waste to use in the garden's composting program. Throughout these activities, students gain knowledge in science, math, language arts, and nutrition while learning life skills and having fun.

SHAPE California Child Nutrition Partners

To promote the benefits of partnering with teachers, the Child Nutrition Director created the SHAPE Child Nutrition Partners (SCNP) program with input from cafeteria staff at managers' meetings. SCNPs are charged with coordinating nutrition-related activities at their school site with teachers, administrators, their peers, parents, and students. Those selected are awarded \$150 annual stipends. Child nutrition staff members must apply to be SCNPs, demonstrating their abilities to link nutrition services with school activities. Over 17 district child nutrition program staff now serve in this role.



Through the SCNPs, all sorts of classroom-cafeteria connections are happening. For example, one program-wide goal is to promote fruit and vegetable consumption. To do so, staff make sure that students hear consistent 5-a-Day messages in classrooms and cafeterias, from lesson plans to school-grown produce served on “garden bars” in the school lunch program.

Through in-service training opportunities, staff are empowered to use Child Nutrition Theme Kits—tools to help SCNPs partner with teachers, such as by providing mini-nutrition lessons and food tasting. Staff also learn how to involve students in setting up bulletin board displays promoting 5-a-day and other nutrition themes.

Build It and They Will Come

Vacaville teachers, child nutrition staff, and administrators have built a strong central team—while allowing school site flexibility—and success has followed. Key to successful garden-classroom-cafeteria links has been jointly defining teacher and child nutrition staff responsibilities through the

job/program descriptions, then NIC members supporting them in however they choose to implement activities at their site.

Most importantly, VUSD's garden-enhanced nutrition education efforts have boosted successes enjoyed by students, as the next vignette illustrates.

Jeffrey, a fifth-grader and president of the school garden club, eagerly greeted guests arriving for a garden tour. He proudly showed the worm compost, tool shed, and raised beds of carrots, artichokes, onions, and strawberries (his favorites). When asked why he got involved with the garden, he said, "Because of my teacher." He talked about weeding, cleaning, the new soil that had just arrived, and the seeds they collect for future planting or sell to parents as a fundraiser. Jeffrey shares that he lives in an apartment and has gardened only a couple of times with his uncle prior to being involved in the school garden. The principal was eager to share the garden with guests, dashing down the hall to say, "Hi there, you came to see our garden?"

Students also enjoy eating more fresh fruits and vegetables. The VUSD Child Nutrition Department has tracked produce consumption since the garden bars were begun. Their data show a marked increase in overall consumption of fruits and vegetables, which could have a significant positive impact on students' health, today and in the future. Over a four year period, produce usage and school lunch participation increased significantly as the chart indicates:

	1995/96	1998/99
Number of Schools with Garden Bars	3	13
Units of fresh produce purchased per year	518	10,815
School lunch meals served	679,628	779,971



Section 1:

BUILDING THE TEAM

First Person: The Domino Effect

MS

Even though I was new as the Food Service Supervisor for Healdsburg schools, I'd witnessed the benefits of promoting student nutrition at my previous job. The school nurse and I applied for a Model Nutrition Education grant. When I heard we got it, I jumped in with both feet—only to find myself facing brick walls! Despite initially agreeing that nutrition links naturally with physical education (P.E.), the P.E. teachers showed no interest in our implementation ideas. Science teachers did see a natural link, but readily declared, “We can’t fit in one more thing.” And my knowing so few people in this small town was a handicap.

So I turned to the arena more within my control: food service. Working with supportive administrators, I changed some minor policies and started marketing healthy school meals by distributing menus at all school meetings. Then I asked the Art Department for help with designing new, bilingual cafeteria menu boards—the start of a terrific partnership. But to reach further, I knew I had to build more trust, awareness, and recognition within this middle school’s community...and what better way than through food?

We started monthly “Guest Chef” events at Healdsburg Junior High School. Child nutrition staff invited and helped parents, school staff, and district administrators to be guest chefs. They were asked to prepare a healthy cultural meal, with staff help, using USDA commodities and fresh local produce...then serve it to students for lunch! Guest chefs showed such creativity: an Instructional Assistant concocted a tasty Cuban dish; a Cajun meal flowed from the hands of our Maintenance Department Head; one student’s Mexican-born grandmother made hundreds of tamales; and the Board of Trustees president cooked an award-winning chili!

Guest Chef has reaped multiple rewards. Students get to try something new and nutritious while seeing adults in their world in a different context. We’ve bridged cultural gaps and increased the potential for promoting consistent messages about healthy eating. Teachers, especially, are more aware of the food and nutrition services we offer.

Best of all, this one fun event set in motion the “domino effect”—things started to happen where I’d not made inroads before. Teachers in science, history, English as a Second Language, art and MESA (Math, Engineering and Science Academy) asked to review nutrition curriculum materials. The same science teacher connected with others in the department and beyond. Nutrition is now taught in a required Decisions class and special education classes, and through the flourishing school garden tended by MESA students. Persistence and flexibility have resulted in a team that now includes the child nutrition program director, five teachers, and the principal and vice-principal.

Overview

Effective nutrition education takes a team effort—but how do you find or create that team? California schools have found a variety of ways to build a diverse team that supports nutrition education. Many started by simply creating awareness in the educational community about the link between nutrition and learning. They went on to involve more stakeholders in planning and implementing nutrition education.

You'll read throughout this section about partnerships – between teachers and child nutrition staff, administrators, and community members. Partnerships are key to making nutrition education happen effectively, especially when time, finances and other educational priorities limit what you can do alone.

Educators strongly support more emphasis on the link between nutrition and academic performance. But they don't always feel supported when they try to act on this link, such as by implementing nutrition education. Thus, we must start by educating the primary stakeholders in our schools (educators, school board members, parents, and community residents) about this link through multiple communication channels.

With renewed understanding of the importance of student nutrition, as a team we can work toward healthy school environments that reflect and support nutrition education policies and objectives (the core of the SHAPE California approach). In addition, parents can obtain nutrition information, as well as information about community food resources, that support and reinforce school-based nutrition education.

Team functions can vary, but most team members share the task of promoting nutrition education efforts wherever they can and do occur in their district or school. Read on to see how some schools have made great progress toward building the team.

If you are planning for a year, sow rice. If you are planning for a decade, plant trees. If you are planning for a lifetime, educate people.”

—*Chinese Proverb*

Stories and Strategies for Building the Team

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Creative Team-Building

The Child Nutrition Director for El Monte City Schools had made great strides over the years in promoting healthy eating through school meal programs in this large, urban, culturally and economically diverse district. But to achieve nutrition education for students in classrooms, she knew that teachers could reach teachers best. She tapped into the wisdom of her teammates on the district's Wellness Advisory Council: the curriculum director, four principals, and two teachers (special education and science). They set out to recruit middle school teachers (one site coordinator per school) for a Nutrition Task Force to implement nutrition education in seventh and eighth grade classrooms.

They began with a creative approach. The Advisory Group used a classroom cooking cart to prepare peach smoothies for teachers attending the back-to-school breakfast. With the principal's help, they made a short presentation at the breakfast to explain the site coordinator's benefits and duties: funding to attend instructional training; priority use of cooking carts; only two meetings a year; and specific, concrete tasks such as selecting teaching materials, developing lesson plans, and training their colleagues. To encourage commitment, site coordinators were given a stipend from grant funds. Although the stipend clearly would not cover all the time they'd spend, teachers appreciated the incentive and promoted nutrition beyond their assigned tasks.

First, it's important to identify your school or district's "stakeholders" or potential team members. They include anyone interested in seeing children succeed in school, and can be lumped into three main categories:

- Primary stakeholders are those whose awareness leads to action directly impacting children's academic achievement, including teachers, parents, child nutrition program staff, administrators, on-site health clinic staff, and students themselves.
- Secondary stakeholders are those individuals and organizations that are or can be active partners in providing the information and promoting nutrition education, using their resources to get the word out to others. Examples include business community leaders, chefs, county health and social services departments, the media, supermarkets, the California Departments of Education and Health Services, State legislators, food industry members, and nonprofit nutrition promotion organizations.
- A third level of stakeholder includes those focusing on advocacy, including institutes of higher education and state agencies responsible for teacher credentialing, child care licensing, and school accreditation.

Pyramid Day

In rural northern California, the Millville School District had previously adopted a K-8 health curriculum, and teachers had a long-standing commitment to school-wide, thematic approaches to teaching. Like many smaller schools, Millville's staff work together closely on a daily basis. When the Food Service Director and a second grade teacher successfully held "Pyramid Parties" in several classrooms, these parties evolved into a "Health Week" of activities—and potential team members to carry it out were not far away.

This nutrition and physical activity event, connected to the health curriculum as well as core curriculum subjects, involved all teachers, students, local community members, and the business community in nearby Redding. Parent volunteers coordinated the planning, made most contacts, and worked with each classroom with support from teachers.

On Pyramid Day, students completed activities and earned prizes at several booths. With teacher guidance, each classroom taught a food group concept to all other classrooms, engaging the students in a "hands on" activity and in tasting foods prepared either by the cafeteria or by the classroom. Thanks to a great deal of teamwork and collaboration, all team members learned about health and nutrition in a fun way.

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Having identified the most important stakeholders in your situation, a little "market research" or needs assessment is in order. That is, consider or assess the concerns, goals, and appropriate actions for each stakeholder identified. What is important to this group of stakeholders regarding children's education? What are their goals stemming from these concerns? What actions can you take with these stakeholders to promote the link between nutrition and learning and gain their support for nutrition education?

For example, school board members are concerned with student achievement, including test scores. They also want to please parents and other constituents. Their goal is to raise student achievement and receive positive publicity for it. Given these concerns and goals, your actions would focus on educating board members about the link between student achievement and nutrition, and how high-quality meals served at school can help students excel while providing a service to parents.

Once you have a sense of what certain stakeholders feel is important, you can address the key issues and interests of each stakeholder group in tailored messages. Find out what stakeholders know about the role nutrition has in student learning. Educate them on what they don't know. Who is already spreading the message that nutrition makes a difference? Work with these

stakeholders—your allies—first to build partnerships that promote nutrition education.

To continue the above example, perhaps one school board member has firsthand experience with the benefits of nutrition, such as through the WIC program or personal/family experience. Work with that member to convince his or her colleagues about the positive difference that supporting school nutrition education and services can make for students.

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Snowballs... in Southern California?!

Huntington Beach Union High School District's nutrition education team was first formed when a science teacher at Westminster High School and the district's Food Service Director worked together to apply for a Model Nutrition Education grant. Once they got this "seed money," things started to "snow ball." The school received a Project LEAN grant and matching funds from the California Nutrition Network. With these funds and publicity, more team members and school buy-in were forthcoming.

The science teacher captured the interest of other science teachers by providing them with something they wanted: five nutrition-related science labs in "ready-to-go kits." With lesson plans and chemicals for experiments in hand, plus food samples for the labs from the food service department, science teachers got excited! The team also recruited a science teacher who coaches the water polo team... who then got other coaches hooked on the link between nutrition and athletic performance. Next thing they knew, a sports nutrition seminar was held after school, with attendance required for student athletes.

The "snowball" continues to roll. A science teacher became a student body advisor and involved the ASB students in helping to write and carry out the Project LEAN grant. Health teachers now teach more nutrition. In applying for a grant from Harvard for students to field-test a nutrition software program, a teacher emphasized the school's commitment to nutrition education.

Like the one in this story, several school districts have found that additional funds can help them accomplish more of their goals. Fortunately, through their team efforts, many have obtained grants to do so.

With some teammates on board and perhaps additional funding, it's time to help your partners translate their newfound knowledge into action: promoting nutrition education. The following success stories from various school districts demonstrate just some of the methods you could use:

- **Elk Grove Unified School District** —The child nutrition program's Nutrition Specialist partnered with the Healthy Start program's nurse to

develop dental hygiene lessons that benefited students and helped meet both programs' goals.

- **Exeter Union School District**—The district's Nutrition Education Specialist wrote monthly articles about school nutrition education efforts and other nutrition facts and published them in the Chamber of Commerce's Community Newsletter.
- **Millville Elementary School District**—A cross-section of teachers, food service staff, parents, and staff from neighboring districts attended a staff development session to raise awareness of ways to enhance academic performance by promoting student health.
- **Pajaro Valley Unified School District**—Four teachers eagerly met with the children's specialist at a local bookstore (on a Saturday!) to select nutrition-related literature for use in their classrooms.
- **Pixley Union School District**—Many school staff and community members spent a year planning the first October Health/Nutrition Fair. Their hard work yielded greater awareness of nutrition in the community and raised additional funds from the healthy meal sold as a fundraiser at the Fair. To ensure this successful event continues, administrators schedule release time for staff to plan Health Fair activities.
- **Pixley Union School District**—Thanks to a SHAPE California mini-grant and their partners in the Healthy Start program, child nutrition staff post menus and nutrition information on a special section of the district's web site. It's one more avenue to get nutrition information and services to families.
- **Terra Bella Elementary School District**—On Fridays, after walking their children to school, parents meet regularly to discuss health and welfare issues and opportunities. Monthly nutrition presentations by the child nutrition program director and district nurse were naturally incorporated into these meetings and welcomed by the parents attending.

We've portrayed success stories here, to show what **can** be done. These same school districts often traveled over "many a bump on the road" to building teams. For more information on how they implemented these successes, see Appendix A for information on how to contact them.

For more ideas on some common team-building obstacles and how to avoid them, consult Section 4: Building Partnerships in *Strategies for Success: A Resource Manual for SHAPE California Child Nutrition Programs*, 1995 (see Appendix C).

More Strategies to Try

Other possible strategies for building teams, conducting market research or a needs assessment, and getting the word out about the nutrition-learning link are listed here.

- Seek out potential partners or teammates who can help promote nutrition education within the SHAPE California model. Do your best to make a positive first impression—some districts have found out how hard it can be to overcome a negative one. Consider those “primary stakeholders” directly affected by or influencing school outcomes, such as:
 - Parents and families
 - Students of different ages, developmental stages, and cultures
 - Administrators (principal or site director, curriculum director, superintendent)
 - Teachers
 - Extended day care providers
 - Board members
 - Child nutrition program directors and staff
 - Preschool community
 - Healthy Start and other onsite health education programs
 - Parent-teacher organizations
- Consider partnering with “secondary stakeholders”—those who have an interest in and influence upon school success, including but not limited to (in alphabetical order):
 - Business community members
 - California Department of Education (beyond the Nutrition Services Division, including authors of curriculum Frameworks/Guides, Challenge Standards, and Distinguished School criteria)
 - California Department of Health Services (e.g., Project LEAN, 5-a-Day)
 - Chefs and culinary organizations
 - Community advocates
 - Faith community members (churches/religious community)
 - Food service industry (vendors, producers, etc.)
 - Foundations
 - Health care providers/hospitals
 - Legislators (Local, State, Federal)
 - Local health and social service departments
 - Media contacts (all forms)
 - Nonprofit organizations, especially those with a clear connection in the nutrition community, e.g., California Dietetic Association (CDA), California Nutrition Council CNC), Society for Nutrition Education (SNE), Dairy Council of California
 - Other classified staff within your district/agency.

- Researchers/universities/community colleges
 - Supermarkets, food banks
 - Textbook publishers and teachers'/administrators' journal editors
 - USDA and other federal agencies
- Receiving input and clear communications from as many partners as possible is key in conducting an adequate needs assessment. Hold brainstorming and planning sessions with all of the stakeholders, including teachers, nurses, administrators, curriculum office, and cafeteria staff. to get their perspective.
 - Don't reinvent the wheel. Use or modify questions/surveys/tools that already exists. Know what questions you are seeking an answer. Focus questions you are trying to answer to a maximum of three. Offer incentives for completion of the survey or commitment to the project.
 - Tips on conducting student surveys include: Be clear on your goal and why you want the information. How will it be used? Ask if the question gives you the data you want now? Keep it short and simple. Use words students understand. Plan in advance with teachers and staff of disseminating the survey to students. Allow time for completing and collecting the surveys from the students.
 - To promote the nutrition-learning link, ask anyone who has benefited from nutrition education to offer testimonials and anecdotes at school board meetings and other gatherings of potential allies.
 - Find ways that educators and child nutrition professionals can serve as mentors to support new "messengers."
 - Disseminate research findings on the nutrition-learning link using a global nutrition and learning message aimed at multiple audiences and presented in a glitzy way (such as a high-quality video).
 - Invite administrators, the Board of Education, and the media to major events.

Resources for Building the Team

Tap into the following resources for ideas and assistance with building your team or team members with whom to collaborate. Organizations that may be able to provide funding for nutrition education are marked with a (\$).

Local

- Local health department nutritionists
- Fitness centers or health clubs that employ registered dietitians
- Hospitals

Regional

- Cooperative Extension Service, including Master Gardener programs and the Expanded Food and Nutrition Education Program (EFNEP) – contact your county’s Cooperative Extension office

Statewide

- California Department of Education, Nutrition Services Division, Education and Training Unit (916) 322-4792 or (800) 952-5609 (www.cde.ca.gov/nsd/nets) (\$):
 - *Better Breakfast, Better Learning* (1994). A booklet describing the positive impact eating breakfast has on academic performance.
 - *Strategies for Success: A Resource Manual for SHAPE California Child Nutrition Programs*. Section 1: Planning for Success and Section 4: Building Partnerships.
 - SHAPE California promotional presentation (overhead transparencies and script).
 - *Eat Well, Learn Well* (1995). A booklet highlighting the importance nutrition plays in preparing children to learn.
- California Food Policy Advocates (415) 777-4422 (www.cfpa.net)
- California Healthy Kids Resource Center (510) 670-4581 (www.californiahealthykids.org)
- *California Nutrition Network*, California Department of Health Services (916) 323-0594 (www.ca5aday.com) (\$)
- *California 5 A Day Power Play! Coalitions* (916) 327-2918 (www.ca5aday.com)
- California Project LEAN, California Department of Health Services (916) 323 4742 (www.dhs.ca.gov/lean) (\$)
- Dairy Council of California, information on Achievement, Learning, and Health (www.dairycouncilofca.org/edu/edu_achi_main.htm)
- *Recipes for Success: Nutrition and Physical Activity Programs for Youth*. Berkeley: California Adolescent Nutrition and Fitness (CANFit) Program, 1998 (510) 644-1533 (www.canfit.org, Resources section) (\$)

Nationwide

- Bogden J., *Fit, Healthy, and Ready to Learn: A School Health Policy Guide*. National Association of State Boards of Education. March, 2000.
- *Statement on The Link Between Nutrition and Cognitive Development in Children*. Medford, MA: Tufts University School of Nutrition, 1994.
- U.S. Department of Agriculture (USDA) **Team Nutrition**
(www.fns.usda.gov/tn) Phone: (800) 321-3054 FAX: (703) 305-2549
 - a) *Changing the Scene: Improving the School Nutrition Environment* (a resource kit for local school districts), 2000
 - b) *Community Nutrition Action Kit*. A resource kit for promoting nutrition in community agencies.
- National Food Service Management Institute (NFSMI). (www.nfsmi.org)



Section 2:

ENHANCING THE CURRICULUM

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First Person: A Workshop Truly for Teachers

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Here in rural Pixley, where most of our students get free lunches, teachers know that nutrition is important to students' success in school. But my colleagues and I never seemed to have the time to put together meaningful nutrition lessons—especially with all the other subjects we have to teach. So when our food service and curriculum directors told us they'd gotten a nutrition education grant, we requested a workshop—hoping to get that time we'd always needed but couldn't find. The answer? Yes!

Working with the Department of Education's Regional Nutrition Education Specialist located in Fresno and our food service and curriculum directors—and the busy before-school workshop schedule—we found two days in August that worked for most of us teaching grades 2-5. My goal was to identify and gather lesson plans that could integrate into the core curriculum. I was wondering how much time I'd actually get to do that, since the workshop started with a review of curriculum frameworks (health, P.E., etc.) and a nutrition education scope and sequence. But that took less than an hour, and then we were free to get to work.

And what an ideal environment to work in: plenty of carefully selected resources, people to guide us to the most appropriate ones, lunch and snacks provided, and all in an air-conditioned conference room! It was critical to have access to copy machines nearby, too. I could work on my own as well as coordinate with lead teachers from other grades. We were aware of copyright issues, but many of the great resources shared are in the public domain or can be copied for educational use. It was great having people as resources, too—especially since I'm no nutrition expert and sometimes had questions about nutrition topics.

At the end of two days of hard work and inspiration, each teacher came away with a binder full of lesson plans tailored to our grade level and academic standards in core subjects (plus a \$200 stipend). By the time we were done, I remember feeling exhausted but also fired up to share this with my colleagues when school started. I knew more work was ahead of me: try out the lessons and support other fifth-grade teachers interested in teaching nutrition-related lessons.

So far it's been great! Like I said earlier, we all know what a difference it can make when a student is well-fed, whether at home or at school. And having ready-made lessons to give my colleagues made it easy for them (and is something I'm proud of). Sure, not all the lessons worked at first, and other teachers adapted them to their teaching style and students. Soon, however, the middle school teachers caught wind of our success and asked us to share at a staff meeting. Nutrition doesn't have to be another subject to teach. It can help us teach core subjects while benefiting the kids. And it feels great to promote such a positive message as healthy eating.

Overview

This section illustrates what some California schools are doing to enhance the overall curriculum through nutrition education. Nutrition education can either be linked with core subjects (such as at the elementary level) or taught separately (such as in health or science at the secondary level). In either case, the goal is to help educators meet the curriculum standards as well as student nutrition needs through effective nutrition education.

What do we know about effective nutrition education?

- It targets skills or specific behavior changes and uses developmentally appropriate strategies.
- It incorporates social support. For example, parental involvement for elementary school children and peer involvement for middle and high school students.
- Children of all ages benefit from a community environment that reinforces the nutrition messages taught at school.

Many California schools have begun to teach nutrition in ways that stay true to these ideals. As described in this section, they have done so in part by:

- Evaluating current resource materials.
- Creating teacher support systems.
- Providing staff development.

To implement nutrition education at the local level, teachers need materials, such as cooking supplies, lesson plans, multimedia products, and ready-to-use activities, and training in general nutrition and how to connect nutrition with core subjects. And, as illustrated in this section's "First Person" story, they need time to plan and coordinate implementation.

Many realize that nutrition education will become a higher priority when nutrition content is added to student assessments. Until that happens statewide, there are other types of key support available from the educational establishment. The California Department of Education's Nutrition Services Division has developed *Nutrition Competencies for California's Children - Prekindergarten through Grade 12*, which is available on the web at www.cde.ca.gov/nsd/nets. Also, there are professional organizations and foundations that advocate for, support, and/or fund nutrition education.

We hope this section tells the story of how schools are discovering that nutrition education truly enhances the curriculum and their students' lives.

"Students are more likely to adopt healthy eating behaviors when they learn about these behaviors through fun, participatory activities...and when lessons emphasize the positive." –
Guidelines for School Health Programs to Promote Lifelong Healthy Eating, Centers for Disease Control and Prevention

Stories and Strategies for Enhancing the Curriculum

Several school districts are finding that—sometimes surprisingly—nutrition fits well into several core curriculum areas.

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Science Labs

Westminster High School (Huntington Beach), like many schools in suburban southern California, has a diverse student body: over half are Asian or Latino, others Caucasian or a blend of heritages. The school also boasts a creative science department, with teachers open to new ways to make science come alive for teens. When the food service director told the lead science teacher there was grant money for nutrition education, she developed nutrition-related lab experiments. To convince other science teachers to use these nutrition-related experiments, she provides them with a complete kit containing lesson plans, chemicals, and food samples.

The food services department supplies food samples (usually outdated snack foods). After students do a lab, they apply what they learned to the food choices they make. For example, one popular lab involves burning a potato or tortilla chip (to measure calories in food). Many students say, “Yuck—look at all the fat!” when they see fat dripping on the counter as the chip burns. Later, they are asked application questions, such as:

- What kind a snack foods burn best and why?
- What other snack foods give you fewer calories for the same mass?
- Looking at the nutrition information on the back of the chip bag, how many calories should you have collected from burning a gram of chip?

You’d be hard-pressed to find a more memorable way to teach science concepts that impact students’ lives. For information on other labs and obtaining details, contact the Huntington Beach staff listed in Appendix A.

Nutrition-related performance standards already exist within the *Health Framework for California Public Schools* as well as in the *Challenge Standards for Health Education*. The *Nutrition Competencies for California Children Pre-Kindergarten through Grade 12* can be used as a reference. Some districts and agencies have established their own academic standards. Using all these resources, curriculum directors and teachers have been able to identify, adapt, and link nutrition lessons to standards in:

- Math
- Language arts
- Science
- History/social science
- Physical education
- Visual and performing arts
- Foreign languages

For examples of nutrition links to math, language arts, and health, see *Nutrition Competencies for California's Children* listed on the Resources page for this section.

Life Skills

At Logan High School in New Haven Unified School District, all freshman are required to take a Life Skills course. And at such a large, urban high school (4,300 enrolled), that's a lot of students! While certain topics must be covered, the course lends itself to include nutrition: after all, eating well is a life-giving skill! With grant funds, a Life Skills teacher partnered with the food service supervisor to compile a five-day lesson plan addressing nutrition topics relevant to teens: the *Food Guide Pyramid*, the importance of breakfast, healthy snacks, fast food, and reading food labels.

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Having decided program goals at the start, they were able to review existing materials (from programs like CANFit and UC Cooperative Extension) and adapt them for most lessons. The next step was key to their success: all Life Skills teachers reviewed the lessons and recommended changes. This not only caught errors but also created teacher buy-in. Once reviewed, the lessons were duplicated, put in binders, and distributed. Science, foods, Life Skills and P.E. teachers who also attended a training workshop received supplies (pens, posters) and a gift certificate as incentives. To follow up, teachers were sent self-stick notes, pencils, and note pads along with reminders to use the curriculum materials.

This curriculum was the key to introducing nutrition education in classrooms at Logan High. Evaluations show that teachers like the materials and continue to teach nutrition in Life Skills and other courses.

The experiences of other school districts illustrate the variety of ways that nutrition can enhance the core curriculum:

- **Pajaro Valley Unified School District**—The nutrition education specialist wrote math, language arts, and health lesson plans incorporating nutrition and tied to academic performance standards for grades 1-2. Within a realistic time frame, teachers reviewed and field-tested these easy-to-use lessons.
- **Pixley Union School District**—Students in grades 2-5 learned about many things via monthly classroom cooking activities: fractions and measuring; hard tack and other food hardships of western settlers; and historical facts about foods from other cultures.
- **Summerville Elementary School District**—A fourth-grade lesson on grains touched on many curriculum areas: discovering foods grown in California and tasting different bread types (social studies); brainstorming and researching types of grains, alphabetizing grain

names, and copying a recipe to take home (language arts); and preparing oatmeal (math).

To avoid “reinventing the wheel,” most educators interested in teaching any subject start by evaluating current resource materials. When it’s not appropriate or possible to adapt existing tools, then they develop new materials as needed. There are so many nutrition education resources to choose from today that the challenge becomes choosing wisely from the sometimes-overwhelming array.

When reviewing nutrition education materials, be sure a nutrition resource person checks that they are accurate and based on current nutrition research. A Registered Dietitian (R.D.) is most qualified, and may be found in your district (ask your child nutrition program director), locally (community college, Cooperative Extension, or health department), or at the state/regional level (California Department of Education, Dairy Council of California). Keep in mind that nutrition education experts have reviewed all materials available on loan from the California Healthy Kids Resource Center.

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Resources: Discovered and Shared

To help find materials appropriate for middle schools in the El Monte City School District, three teachers on the district’s Nutrition Task Force traveled to the California Healthy Kids Resource Center in Hayward. After reviewing numerous options, they compiled a nutrition lesson plan linked to each core subject (math, science, social studies, and language arts) for both grades 7 and 8.

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Upon their return, they distributed the lessons among all Task Force teachers for field testing. After field-testing, they conducted four half-day in-services to disseminate the lessons to all middle school teachers. Task Force members demonstrated recipes linked to each lesson using cooking carts purchased for each school site.

Many teachers are willing to engage in the process of reviewing and selecting materials, but it takes so much time—and some additional expertise—that they can’t do it on their own. Thus, creating and providing teacher support systems can be critical to getting nutrition education efforts off the ground. Sometimes this support comes from fellow teachers; in other instances, another resource person lends support.

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Nutrition Focus

In Elk Grove, a Sacramento suburb growing in size and diversity, an interdisciplinary team developed 22 Nutrition Focus Lessons for middle school science and physical education classes. The development team

included a curriculum specialist, science teacher, nutritionist, and physical education teacher. A student team reviewed the curriculum to make sure it was “kid friendly.” The creators also incorporated reading strategies into the lessons such as literature circles and word association. The lessons meet the district’s Benchmarks and Assessments for seventh grade students. After field-testing, they were approved by the Curriculum Approval Committee.

Before implementing the Nutrition Focus Lessons, middle school teachers completed four in-service training sessions, mid-week from 4:00 –7:00 p.m. at the Food Production Center. Each lesson was reviewed and potential teaching strategies demonstrated. The workshops received excellent evaluations. One teacher commented, “This will be very easy to integrate into the P.E. curriculum. This applies to several units as well as pull out lessons.” Others said the lessons were relevant, very structured, and teacher/kid friendly.

Once materials have been identified or developed, teachers need to learn how to use them. Providing practical staff development is the next step. What’s practical for teachers? Most need a review of nutrition concepts, since nutrition is a dynamic science. New research produces new recommendations while refuting outdated claims, and helps us separate fact from fad.

Conference Booster

A group of middle school teachers from Hawthorne School District volunteered to attend the Healthy Schools, Healthy People 2000 Conference. The group represented a wide spectrum of the school curriculum: math, healthy living, science, and language arts/social studies. These teachers wanted to increase their personal knowledge of health and nutrition, as well as learn some new strategies for incorporating nutrition into their lessons. The knowledge and ideas they gained at the conference helped them develop lessons for each curriculum area. Travel expenses, hotel and conference fees for these motivated teachers were covered by a model nutrition education grant.

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Creative teachers are always looking and listening for new teaching strategies, especially when approaching a subject as interdisciplinary and applied as nutrition. Hands-on activities, core curriculum linkages, and cafeteria/classroom coordination are all important in teaching nutrition.

Effective Teaching Strategies

Middle school teachers from the El Monte City School District used grant funds to attend *Effective Teaching Strategies*. This course, offered by the CAL PRO NET Center at San Jose State University, provides teachers and child nutrition professionals with active ways to learn new strategies for

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teaching adults and youth. Attending the course not only gave the teachers new skills but helped them gel as a nutrition education team.

Teacher training also needs to reference State academic standards, and district standards and benchmarks if they exist. Teachers need to know how the nutrition-content lessons fit in with grade-level specific academic assessments. And beyond standards, teachers will want to know how the materials address multicultural needs and connect with students' families at home.

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Reading Infusion

Reading specialists are always looking for ways to help classroom teachers improve their students' reading skills. In the Elk Grove Unified School District, reading specialists used recipes as an avenue for improving students' reading comprehension of procedural text (grades 4-7). They wrote about five questions for each recipe from the 5-a-day *Kids Get Cookin'* Cookbook, and used these in training sessions for teachers.

Practical teacher in-services model effective teaching strategies and demonstrate successful programs/lessons. Plus, any training that incorporates personal health promotion helps teachers "walk the talk" and apply nutrition concepts in their own lives.

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Fun at School

Exeter is in the heart of California's agricultural abundance. The creative teachers at Wilson Middle School knew that to get nutrition taught in their classrooms it would have to tie in with other subjects. With the food service staff as their ally, teachers adapted lessons in language arts, social studies, and science to include nutrition information. Then they modeled the lessons for their colleagues at staff meetings and on staff development days.

For example, in sixth grade, students practiced language arts skills when reading and discussing *Who Really Killed Cock Robin?* (Acorn Naturalists). Teachers incorporated science by conducting a field trip to an insectary. Through the text of *A Message of Ancient Days* (Houghton Mifflin), students made social studies discoveries. Health concepts used fruit and vegetable photo cards (California Department of Education) and referenced *Growing Vegetables California Style* (Poppy Press). To tie it all together, the cafeteria manager prepared a large salad bar of foods commonly grown in Tulare County.

Similar links were made in seventh grade social studies (exploring the continents one bite at a time) and eighth grade art (fruit sculpture). Teachers found that students retained more of the essential facts when lessons were integrated. Although the state testing results were

inconclusive, some teachers reported a 15 percent improvement in test scores in subjects featuring visual aids and hands-on involvement. Besides, kids learn skills and knowledge when they think they're just having fun!

More Strategies to Try

- Post the following types of information on SHAPE California or other appropriate web site(s) and publicize its availability:
 - Bulletin board/chat room for teachers to share ideas. Teachers are very creative and need an opportunity to share!
 - Video clips of model lessons
 - Links to other sites (e.g., California Healthy Kids Resource Center, USDA's Team Nutrition, Dairy Council of California)
 - Gardening activities and resources
 - Ready-to-download presentations (e.g., PowerPoint™)
 - Calendar of events
 - Nutrition competencies
 - Cross-referenced information
 - SHAPE California district highlights
- Develop a “road show” for sharing results, activities, and programs, including videos, conferences, newsletters, and/or exhibits. Audiences could include teachers, administrators, parents, school boards, curriculum specialists, County Offices of Education, and so forth.
- Work with local professional organizations to advocate for, support, and/or fund nutrition education. For example, consider approaching local districts/chapters of the following (check the Resources page, the internet, or your telephone directory for contact information):
 - California Dietetic Association
 - California School Food Service Association
 - California Nutrition Council
 - Association of Supervision and Curriculum Development
 - Association of California School Administrators
 - California School Nurses Organization
 - California Teachers Association
 - Hospitals and health maintenance organizations
 - PTA/PTO or other parent/teacher organizations

Resources for Enhancing the Curriculum

The following resources include academic standards set at the State level, professional organizations that can help with advocacy, materials, and/or funding, and other resources to help you enhance the curriculum.

Local

- Local health department nutritionists
- Health maintenance organizations

Regional

- Cooperative Extension Service, including Master Gardener programs and the Expanded Food and Nutrition Education Program (EFNEP) – (Contact your county’s Cooperative Extension office.)

Statewide

- Association of California School Administrators (800) 890-0325 (www.acsa.org)
- California Association for Health, Physical Education, Recreation and Dance (800) 499-3596 (www.cahperd.org)
- California Dietetic Association (www.dietitian.org)
- California Healthy Kids Resource Center (510) 670-4581 (www.californiahealthykids.org)
 - On-line catalog, with ability to search by instructional strategies (peer teaching, role-playing, etc.)
 - Form or tool for evaluating existing nutrition education materials
 - Research articles, calendar of events, etc.
- California School Food Service Association (818) 842-3040 (www.csfsa.org)
- California School Nurse’s Organization (916) 448-5752 (www.csno.org)
- California Teacher’s Association (650) 697-1400 (www.cta.org)
- California State Board of Education, academic content standards in mathematics, English-language arts, science, and history/social science (916) 657-5478 (goldmine.cde.ca.gov/board)
- *Challenge Standards for Health Education* (916) 657-4849 (www.cde.ca.gov/challenge/health.html)
- *Challenge Standards for Physical Education* (916) 657-4849 (www.cde.ca.gov/challenge/pe.html)
- *Health Framework for California Schools* (1994): Chapters 6 (assessment) and 7 (integration) and Figure 2, page 206. Addendum scheduled for completion in 2001. (916) 657-3023 (www.cde.ca.gov/cilbranch/eltdiv/cdsmc.html)
- *Nutrition Competencies for California Children Pre-K through Grade 12*. California Department of Education, Nutrition Services Division, (916) 322-4792 or (800) 952-5609 (www.cde.ca.gov/nsd/index.htm)

Nationwide

- American Cancer Society 1-800-ACS-2345 (www.cancer.org)
- American Dietetic Association (312) 899-0040 (www.eatright.org)
- American Heart Association (www.americanheart.org); consult your telephone directory for the phone number of your local chapter
- American School Food Service Association (703) 739-3900 (www.asfsa.org)
- Association for Supervision and Curriculum Development (800) 933-ASCD (www.ascd.org) National Cattlemen's Beef Association, materials that link nutrition with science and history: *Dig In* (grades 3-4) and *Digging for Data* (grade 6) (www.teachfree.com)
- National PTA (800) 307-4782 (www.pta.org) or other parent/teacher organizations
- Society for Nutrition Education (202) 452-8534 (www.sne.org)

Some Suggested Nutrition Curriculum and Resources

Elementary Level

- USDA's Team Nutrition/Scholastic Series:
 - Food & Me (PreK-K)
 - Food Time (Grades 1-3)
 - Food Works (Grades 3-5)
- CDE Press: Nutrition to Grow On
- Dairy Council of California:
 - Healthy Choices/Balance Meals (Grade 2)
 - Shaping Up My Choices (Grades 4-6)
 - Now We're Cooking (PreK – Grade 6)
- 5 A Day:
 - 5 A Day Power Play!, Dept. of Health Services
 - 5 A Day CD Rom, Dole Foods
- American Heart Association: HeartFest

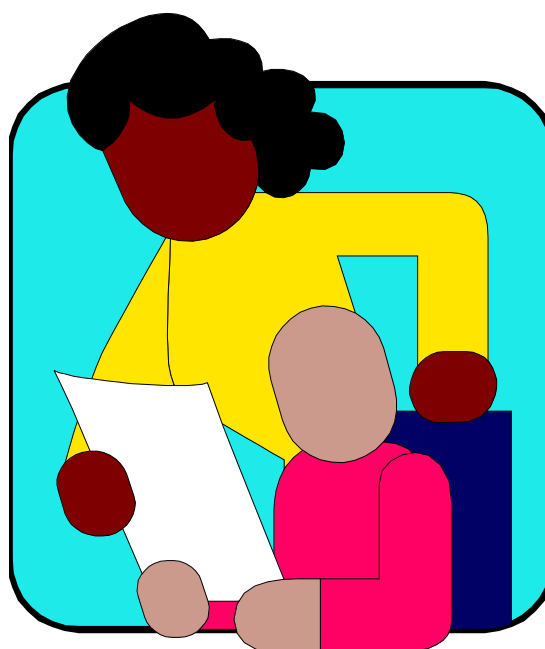
Middle School

- USDA Team Nutrition: yourSelf
- Dairy Council of California: Exercise Your Options
- American Cancer Society: Changing the Course
- California Foundation for Agriculture in the Classroom

High School

- Project LEAN, Department of Health Services
 - Jump Start Teens
 - Playing the Policy Game

Section 3:



Section 3: STRENGTHENING TEACHER AND STUDENT SKILLS

First Person: Pyramid Parties

UE

Last year, when I was in third grade, some Moms brought cupcakes for a class party. That was okay, but not too exciting. This year, we've had some awesome parties—and us kids got to plan them ourselves! Actually, our teacher helped out a lot, and the lady who plans the school lunches (she's called the food service director) helped, too.

We'd been learning about the Food Guide Pyramid—what foods belong where, why there are more breads at the bottom, and other stuff like that. We weren't too thrilled that all the party foods we liked were in that tiny top triangle. But things got more interesting when our teacher said we could plan a class party using foods from another group. And then she told us we could fix the food!

We picked the milk group for our December holiday party. I thought, “Great, what are we gonna do—taste different kinds of milk?!” But some kids thought tasting different kinds of cheese would be yummy, so we planned the party around that. We added crackers (from the bread group) and fruit and juice (from the fruit group) to make our menu.

The food service director gave some SHAPE money to the teacher to buy the food. She invited us to the big school kitchen to prepare the food on the day of the party. We all had to wash hands, put on aprons and hats—cool! Before all this, our teacher helped us figure out how many slices of cheese and how many crackers we would need (kind of fun math) and what good nutrition cheese gives our bodies. When we got to the kitchen, we supervised the grown-ups who were slicing the cheeses, including some kinds I'd never seen before. We then helped put them on trays with the crackers in neat patterns. We washed the fruit and helped pour the juice. That afternoon's party was delicious—I'll never forget it. And I even liked most of the cheeses I'd never tried before.

When Valentine's Day was coming up fast, our teacher said we could just bring sweets for our party. Me and some other kids raised our hands and asked why we couldn't have another Pyramid Party, 'cause we liked those better. She said, “Okay, if it's food that's easy to fix.” So we chose the fruit group for our party. We learned about fruits grown in California—and some I'd never heard of—and why fruit is healthy. We liked so many kinds of fruit that in the end we had to take a class vote. We added vanilla yogurt and pretzels to make our party menu. We helped get the food ready on party day: washed the fruit, spooned yogurt onto plates, and put pretzels in bowls. Yum! Now I sometimes fix a snack like this for my sister and me at home.

Me and my friends say, “Pyramid Parties at Terra Bella Elementary School rule!”

Overview

Many nutrition education programs are only effective in increasing students' knowledge of healthful foods or nutrient needs. Yet remember back in Section 2, we recommended that nutrition education focus on skills or specific behavior changes. Just what skills (not just knowledge) do students need to make healthy food choices? And what skills (not just knowledge) do teachers need to help students learn healthy eating behaviors? The strategies showcased in this section are designed to help you address these questions.

“If you give a man a fish, he will eat for a day. If you teach a man to fish, he will eat for a lifetime.”
—Anonymous

Some of the success stories featured in this section show how the following steps can lead to improved skills for teachers and students alike:

- Assess the needs of teachers and students in your district or agency.
- Develop or adapt teacher staff development programs to fit your district or school's needs and find the resources to offer them.
- Ensure that students receive hands-on instruction that teaches nutrition-related skills yet is aligned with academic standards.

Teaching nutrition-related skills can happen in so many ways, from spending a few minutes a day tending the school garden to participating in elaborate activities as part of an extensive curriculum. The goal remains to strive for sustainable nutrition education programs that are comprehensive, sequential, and culturally relevant for California's children and youth.

However, schools have to start somewhere, and it is usually better to offer a few hands-on, skill-oriented activities than wait years until you develop and implement that “perfect plan.” Many of the stories in this section illustrate how you can start with small but significant activities that fit within the longer-term goal. Remember, do what you can do now, and work toward fulfilling the “big picture” one step at a time. The students you serve will benefit along the way.

Stories and Strategies for Strengthening Skills

Before you decide how to strengthen teacher and student skills, it helps to have an idea of what skills they might need. You can't teach all skills to everyone, so assessing the needs of teachers and students in your district or agency specifically can help you target your efforts and make the best use of limited time and funds.

How do you assess the needs within your district? Possible questions regarding teachers' skills include:

- What are teachers' experiences teaching nutrition? What information do they have, and who do they seek as a resource?
- Do teachers feel comfortable teaching nutrition facts or food preparation? If not, perhaps some hands-on demonstrations and training and a nutrition shelf in the resource room would get them going.
- Are most of your teachers veteran or new? With recent efforts to reduce class sizes in lower grades, there are many new teachers in California. Several schools find that newer teachers are receptive to nutrition information and willing to use it to teach core curriculum concepts.

To assess students' skills and education needs, ask:

- What are the students' eating habits, in general?
- Are meals prepared at home or eaten away from home?
- What proportion of students eat school meals?
- Are kids home alone after school or on their own for a while beforehand? If so, they could benefit from simple food selection and preparation skills so they can prepare and eat healthy breakfasts and snacks by themselves.

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Nutrition Corner

Young teens in the Hawthorne School District seem eager to find out ways to look and feel better—but don't always get accurate information on how to do so. To get reliable yet relevant information to these youth, teachers have worked with librarians at three middle schools to reserve a special section of the school library or health classroom and call it the "Nutrition Corner." Books, magazines and pamphlets on nutrition, food, gardening, fitness and health are displayed and available to all students. A computer is set up with an interactive CD-ROM of nutrition education software (*Contemporary Nutrition* by Cambridge Educational). Students see this as an opportunity to learn about nutrition in a setting other than the classroom. Haven't seen a student in a while? Chances are you'll find her in the corner—doing research for a school project or seeking out information for personal interest at her own pace.

What do you still need to learn about the needs within your district? Asking teachers what they feel they would need in order to incorporate nutrition education can take many forms. Depending on the size of your district, you might conduct an informal discussion or poll in the lunchroom, or distribute a paper or e-mail survey. The point is to get a finger on the pulse of local needs, rather than relying on state statistics or random perceptions.

Student Nutrition Survey

As a joint effort with a Project LEAN grant, staff at San Juan High School (Carmichael) developed a written survey to find out about students' eating and physical activity habits. The first year, they surveyed 730 students out of 950; culinary students hand-scored the results, but these had to be redone by the school nurse. With help from the district's Research and Evaluation Specialist the second year, they used an automated scoring system (Scantron) and surveyed a smaller sample of 180 students in English classes.

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All teachers were asked to give the survey to their classes in the fall, when they are less busy. The survey and other grant-funded activities were promoted at teacher meetings, which helped identify teachers willing to get involved ("building the team"). Since the school is an "under-performing school," teachers are under pressure to keep kids in class and doing academics. As an incentive to take time for the surveys, students received book covers with the district's food service logo, and teachers were given cups, key chains, and stress balls. When non-participating teachers saw the prizes they said "Whoa, I wish I had done that!"

The survey results helped staff fine-tune the nutrition education topics to target in grant activities. The survey also validated the topics proposed in their grant application, and, for teachers, validated the nutrition needs of students. According to the school nurse, "The teachers were pretty appalled" at student eating practices. Yet when teachers completed the same survey, they reported skipping breakfast more than students did. Results were also published in parent newsletters periodically. Since teens often don't tell their parents what foods they eat away from home, parents were glad to learn what their students reported eating.

Once you have identified teacher training needs, the next step is to develop or adapt staff development programs. A number of successful teacher in-service training experiences were shared in Section 2. As you plan teacher training, consider incorporating the following:

- Identify what teachers need to know, from accurate nutrition information geared toward their students to tips for managing classroom cooking activities.

- Tie staff development to products that teachers can use, such as lesson plans, cooking carts, and so forth.
- Show how nutrition-related lessons can help them meet academic standards by grade level. (See the *Science Labs* story on page 26 and *Nutrition Competencies* on the Resources page.)
- Identify other key elements for successful nutrition education including partnership building, multicultural issues, project documentation, student assessment, and connecting with families.

UE

Spilt Milk

Teachers of grades 3 and 4 at Summerville Elementary School saw the importance of teaching their students about healthy eating, but were a little unsure how to go about it. So a teacher who had done it before showed them. At a regular staff meeting, she demonstrated a lesson comparing the fat content of milk types. She read the story *It Looked Like Spilt Milk* and illustrated it using a story apron (Lakeshore Learning). Then, referring to the *Food Grows* curriculum (Team Nutrition), she showed teachers how to have students read the Nutrition Facts labels from different milk cartons to discover and compare the grams of fat in each. And to complete the experience, teachers participated in a blind taste-test of the varieties of milk... and soon were doing so with their students in class.

Increasing teacher confidence and skills is a big first step in nutrition education. Yet the next step—ensuring that students receive appropriate instruction—is even more critical to meeting students’ nutrition needs while achieving academic standards. Years of nutrition education research point us in the direction of skill-based, hands-on instruction.

The ultimate goal of effective nutrition education is to help students develop and use skills in making healthy food and fitness choices. These skills can range from gardening and menu planning to shopping, safe food handling, and cooking. Sure, students need nutrition knowledge as a foundation, but only when they apply that knowledge through learned skills does it translate into healthy behaviors.

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Class Rotation

School board members and the principal at Terra Bella Elementary School knew that their students, many from low-income households, lacked opportunities to be physically active or enjoy a variety of nourishing foods, and saw that this was impacting their academic capabilities. With administrative support, teachers developed a way to address these needs.

Throughout much of the year, students in grades 3-5 rotate through five class topics every seven days: Nutrition, Character Counts, Health, Cooking, and Physical Activity. Each teacher becomes an expert in one of the topics and then teaches the same lesson to all student groups. Groups

of students rotate through each lesson, conducted in classrooms, on the schoolyard, in the cafeteria, and in the school's "cooking kitchen" (an unused home economics room with four workstations).

It has taken considerable effort and organization, from adapting lesson plans to scheduling teachers and students. Yet the payoffs have been tremendous. Teacher morale has improved since having to work together so closely. Students now in middle school are clearly more willing to try new foods than students who did not participate. Students can hardly wait for the next cooking session, and parents frequently ask teachers for recipes to try at home.

Use hands-on instruction. From simply manipulating food pictures or replicas to cooking in class or working in a garden, students (and adults) can learn so much more by doing than by just listening. Each classroom of students represents a variety of learning styles, so engaging all their senses helps more students retain what they learn.

What Smells So Good?

A wonderful smell emanating from the third period health class at Vaca Pena Middle School in Vacaville wafts down the hallway. Today a visiting chef is demonstrating how to prepare an omelet using some of the school garden's vegetables. As class begins, there is a buzz of excitement among students. Two staff members from the school cafeteria enter, wearing smiles and brightly colored smocks. The teacher gives a "Classic Omelet" handout to each student. As student helpers and the chef cook, students follow the demonstration, filling in the blanks on how to make an omelet.

At the end of the period, students sample the creation and get their the homework assignment: to cook the omelet that they just saw demonstrated in class, then answer some questions and have their families fill out an evaluation. The bell rings and off they go to their next class as the next class lines up to enter. The teacher shakes each student's hand as they walk in the door. Little do they know that she has Glo-Germ® powder on her hands. Later she will use a UV light to expose germs still lurking on their hands even after they have washed them prior to cooking.

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A number of schools offer the following tips for classroom cooking projects:

- Work with smaller groups of students. At Terra Bella, the P.E. teacher takes two student groups (40 students) while two teachers lead cooking lessons with one student group (20 students).
- Keep cooking lessons simple. For example, use easy (4-5 ingredient) recipes. Plan foods that can be made with a one-stop shopping trip.
- Require students to do all of the preparation and clean-up.

- Build around themes (agriculture, holidays, curriculum units, etc.) and use seasonal foods (fresher and more cost-effective).
- Connect with the cafeteria by providing incentives for students who try a new food.
- Use the *Food Guide Pyramid* and cultural food practices when selecting a variety of recipes for students to prepare.

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Hands-On Nutrition

While some special education students at Logan High School in the New Haven Unified School District will live with family or in residential care homes after graduating, other will live independently with minor assistance. To help prepare them, teachers and food services staff collaborated to develop a series of hands-on nutrition lessons. Following instruction on eight key nutrients, students gathered in small groups with a teacher's aide.

Each group planned a breakfast, lunch, and dinner menu using food photo cards (National Dairy Council). They then evaluated their menus using the nutrient information on the cards and what they learned in class. To complete their experience, the students purchased foods for and prepared their menus. Teachers and aides assisted and demonstrated skills at each step. Students prepared the recipes several times—first in groups then individually—to reinforce their new skills. Some parents report that their child has prepared the food for them at home.

Effective nutrition education uses a variety of media to model healthful behaviors. And, as the next success story illustrates, nutrition facts can be demonstrated and learned in unconventional ways!

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Our Next Feature: Nutrition!

Exeter, a small town at the foot of the Sierra Nevada mountains, prides itself as “a city of the arts.” So what better way to promote healthy eating habits than through the arts? In this case, the vehicle for nutrition education was dramatic arts. The Exeter High School Drama Club liked the idea of a “nutrition play” so well that the club president adopted it as her senior project.

Using popular themes and slogans, students in the club planned a series of five skits to be performed at middle school assemblies. Topics were based on information gathered from a student survey on “Teen Attitudes toward Food and Nutrition,” including undernutrition, anemia, obesity, unsafe weight loss, eating disorders, and dental caries. Nutrition topics that might have otherwise seemed dry, boring and irrelevant to teens came alive in

the form of pertinent, energetic, and humorous skits. Veggie Bell (a Taco Bell satire), E.R. (Emergency Room), teacher interviews and a quiz show were enthusiastically received by middle school students, teachers, and administrators.

Link nutrition education to physical activity/education whenever possible. Not only are the two subjects interconnected, but it may help turn the tide on the epidemic of obesity among American children and youth.

Marathon Club

Teachers at a Hawthorne School District middle school were not only concerned about their students' lack of physical fitness, but about their own lack of time to stay fit. The Marathon Club, an after-school fitness program for students and staff, has provided an answer to both concerns. In the first year, 60 students and four teachers ran or walked laps around the school track and added up laps until they equaled 26 miles.

The goal was to motivate people to become fit in a non-competitive way (especially students not involved in sports). Club sponsors (two P.E. teachers) monitored and tracked the students' laps. As participants reached pre-determined goals, they received nutrition- or fitness-related rewards. At 26 miles, participants earned a student designed T-shirt (with "I DID IT!" printed on the back). The first 15 people to reach 26 miles were honored at a special luncheon, and all participants took a trip to the local beach in the spring. One club meeting was devoted to nutrition/fitness information.

As part of the Marathon Club, students benefit from the increased self-esteem and feeling that they are part of a "team." Also they learn about goal-setting and can see the benefits of physical activity. Staff have a way to stay fit that's convenient and inspiring. This year, a marathon club is starting at another school site. In the future, club members hope to take kids to local fun runs.

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More Strategies to Try

- Establish a student health club modeled on the Marathon Club described in this section. With a focus on more than walking or running, these weekly after-school meetings could include exercise and nutrition information. With guidance, secondary students can select, research, and present the information. (See CANFit in the Resources Section, Appendix C.)
- Copy the format of questions on standardized tests when developing questions that test nutrition knowledge. In doing so, you'll give students a chance to practice their test-taking skills while learning nutrition.
- Consider offering a health sciences academy at the high school level. A team of teachers at one high school developed an academy that provides students with opportunities to experience challenging and significant science and nutrition concepts.
- Try alternative venues for students to learn nutrition-related skills. For example, the food service supervisor at Healdsburg Junior High School sponsored a Healthy Lifestyles Advertising Club. Several groups of five students each met at lunch to develop an upbeat campaign about eating well, called "The Millennium Generation: Get a Fresh Start." With help from a local advertising agency and the school's art classes, the club developed several posters and school radio commercials. Although the club structure had its limitations, students had fun while being creatively engaged, empowered to make a difference for others, and challenged to do original work. If incorporated within an English, social studies, or drama class, an advertising project like this holds great potential for teaching language skills, psychology, creative thinking, and cooperative learning.
- Provide teachers with pre-service training. Work with pre-service educational institutions (universities, state and community colleges) to:
 - Help teachers gain a scientific knowledge base in nutrition and health.
 - Give them skills in teaching healthy behaviors.
 - Help them learn to access and evaluate nutrition information and teaching materials for reliability and usefulness.
- Provide short staff presentations to teachers, giving them short but effective strategies to use in their classrooms. When a teacher is given a lot of information at one time, they become overwhelmed. If it is specific to their classroom, is in one piece, presented simply, and easy to happen, it is more likely to be used.

Resources for Strengthening Skills

Local

- Child Nutrition Program directors and staff in your district or agency
- Registered Dietitians (consult your telephone directory, log on to www.eatright.org → Find a Dietitian, or call Nationwide Nutrition Network at (800) 366-1655)
- Academic performance standards established by your district or agency
- Cooking carts

Regional

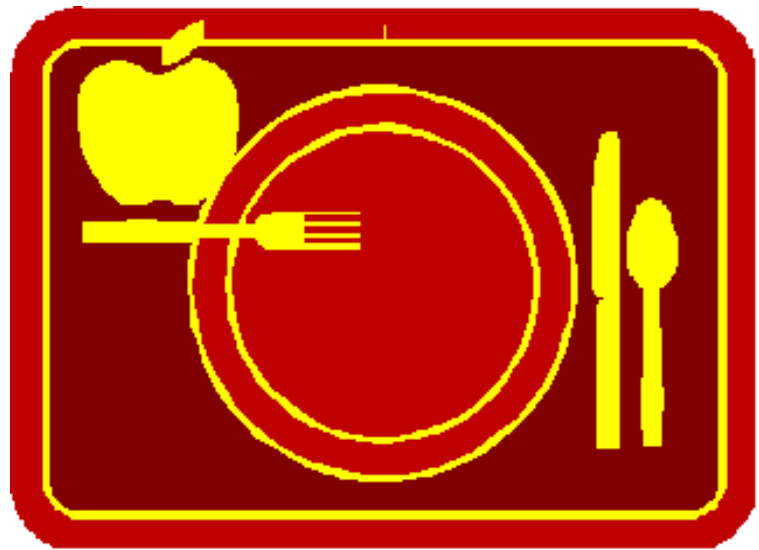
- Cooperative Extension Service, including Master Gardener programs and the Expanded Food and Nutrition Education Program (EFNEP) – contact your county’s Cooperative Extension office
- County Child Care Councils (consult your telephone directory)
- County Office of Education staff (consult your telephone directory)
- Universities and colleges (teacher preparation institutions)

Statewide

- California Association for Health, Physical Education, Recreation and Dance (800) 499-3596 (www.cahperd.org)
- California Department of Education, Nutrition Services Division, (916) 322-4792 or (800) 952-5609 (www.cde.ca.gov/nsd/nets):
 - *Improving Children’s Health Through Nutrition Education—A Nutrition Education Summit*. Proceedings (1998)
- California Healthy Kids Resource Center (510) 670-4581 (www.californiahealthykids.org)
- Challenge Standards for Health and Physical Education (916) 657-4849 (www.cde.ca.gov/challenge)
- Dairy Council of California (www.dairycouncilofca.org)—free program materials and teacher training for grades K, 2, 4-6 and middle school; nutrition lessons linked to core curriculum content standards
- Health and Physical Education Frameworks for California Public Schools (1994) CDE Press (800) 995-4099 or (916) 445-7608 (www.cde.ca.gov)
- California Healthy Kids Survey (888) 841-7536 (www.wested.org/hks)—Comprehensive youth health and risk behavior data collection support system, including assessment of nutrition and physical activity behaviors.
- *Nutrition to Grow On*, an upper-elementary curriculum with in-class and outdoor nutrition-based vegetable gardening experiences. CDE Press, (800) 995-4099 or (916) 445-7608.
- *Recipes for Success: Nutrition and Physical Activity Programs for Youth*. Berkeley: California Adolescent Nutrition and Fitness (CANFit) Program, 1998 (510) 644-1533 (www.canfit.org)

Nationwide

- American Heart Association (www.heartsources.org→for kids→HeartFest) (consult a telephone directory for your local chapter)
- *Guidelines for School Health Programs to Promote Lifelong Healthy Eating*, Centers for Disease Control and Prevention (770) 488-3168 (www.cdc.gov/nccdphp/dash/nutguide.htm)
- USDA's Team Nutrition materials, including *Food and Me* (PreK-K), *Food Time* (Grades 1-2), and *Food Works* (Grades 3-5) (800) 321-3054 (www.fns.usda.gov/tn)
- Tufts University's Nutrition Navigator (www.navigator.tufts.edu)—on-line rating and review guide designed to help you sort through nutrition information on the Internet and to find accurate, useful nutrition information you can trust.
- National Cattlemen's Beef Association materials for grades 3-6 that tie nutrition into science and history: *Dig In* (grades 3-4) and *Digging for Data* (grade 6). (www.teachfree.com)



Section 4:
LINKING CLASSROOMS
AND CAFETERIAS

First Person: The Potato Project

EE

My second grade students, mainly Spanish speakers/readers, live in Pajaro—a rural and isolated area surrounded by fields growing California's bounty of produce. Yet their exposure to the variety of foods available in our area is limited. Take potatoes for instance—when we first started teaching about food and nutrition, most kids knew potatoes only as French fries! So my fellow teachers and I worked with the nutrition education specialist and cafeteria manager to create The Potato Project.

Who would have thought students could learn math, language arts, science, health, music, art, and history from the humble potato? Students planted potatoes in barrels, cared for the growing plants, documented plant growth, and weighed varied sizes of potatoes. They learned about the role of potatoes in the Irish Famine, memorized and wrote poems about potatoes, and surveyed classmates on their favorite ways to eat potatoes. Students categorized potatoes and toppings into food groups, learned their nutritional value, and tasted potatoes prepared in a variety of ways. Finally, students illustrated an English/Spanish recipe book on how to bake a potato and shared it with their families at home. Many parents reported that they made baked potatoes for the first time and loved them!

Through collaborative work groups, this project gave me an easy and effective way to reinforce basic SAT-9 skills for math (measurement, charting, graphing), language arts (reading and comprehension), and science (life cycle of plants, plant parts). Plus, real life experiences with foods (growing, harvesting, preparing, and eating) make the lessons more meaningful and long lasting for both the students and their families.

* * * * *

When the second-grade teachers approached me (the cafeteria manager) about my role in The Potato Study, I thought, “I’ve never done this, but it sounds great!” The next thing I knew, I was baking potatoes for all the second grade classes, and providing toppings, too (cheese, sour cream, broccoli, salt and pepper).

The students were clearly proud when they harvested the potatoes, and excited when it was finally time to eat them. Students voted on their favorite toppings, and shared what they learned with their families. I love the way that this kind of activity gives me menu-planning ideas and increases support and visibility for the child nutrition program.

The best part? Getting to see all that the kids had learned by studying potatoes, and knowing I had a role in that. It was great working with the teachers, too, and really feeling that we are an educational team. And with all the details—scheduling, purchasing, and other logistics—it takes a team effort!

Overview

Teachers, do you ever think that nutrition education would sink in for your students “if only” the food sold at school reflected what you were teaching? And child nutrition professionals, do you just know that more kids would eat the healthy school lunch you work so hard to serve “if only” teachers would promote school lunch and teach nutrition in class?

Both of these perceptions are common—as well as a sign of some misunderstanding. In this section you’ll read about schools that have gone beyond these limited views to foster communication and create linkages between cafeterias and classrooms. As a result, they enjoy new understanding, synergy, shared resources and support, and—best of all—students who receive consistent messages about healthy eating.

When asked in surveys and focus groups, teachers and child nutrition program staff alike expressed universal support for a strong relationship between classrooms and cafeterias. Yet they also identified two main barriers to this relationship: time to meet and work together, and a lack of understanding of each other’s job responsibilities, skills, and expertise.

The purpose of this section is to help teachers and child nutrition professionals build relationships resulting in coordinated classroom and cafeteria activities that promote student health and academic success. Resources and administrative support are needed to achieve this, including time for meetings and other modes of communication; for cafeteria staff to be at the school site; and for staff development. However, as we have seen in previous sections, staff who are motivated by the positive changes they see in their students have carved out the time to partner with others to find creative approaches to nutrition and health education.

To build synergistic partnerships between the classroom and the cafeteria and promote understanding of each other’s roles and responsibilities, the strategies in this section strive to:

- Construct relationships that achieve success for all partners.
- Enrich each partner’s awareness of and respect for the other’s role in promoting student health and academic success.
- Link classroom and cafeteria activities.
- Establish or tap into a school-wide and/or student committee.
- Invite parents to become involved in classrooms and cafeterias.

“As we let our own light shine, we unconsciously give others permission to do the same. As we are liberated from our own fear, our presence automatically liberates others.”
—*Nelson Mandela*

“It’s the little things that can make a big difference. If teachers and child nutrition staff work together and try to understand each others’ needs, a whole world of cooperation and understanding can result.” –
Nutrition Education Design Group

Stories and Strategies for Linking Classroom and Cafeteria

How do you create a successful partnership with someone? You start by promoting open communication. Talking with each other to learn about each other's role in promoting students' health and academic success can go a long way in creating respect and buy-in.

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Reaching Out

The Food Service Director at Pixley Union School District in the Central Valley makes it a point to talk with teachers regularly. She asks what they are teaching in the classroom, offers her support and help, and discusses ideas, recipes, or teaching strategies to support them in the classroom. She often offers suggestions and ideas for integrating nutrition into a classroom subject.

To reach out to busy teachers, the director determines the best time and place to approach them, whether that's in the cafeteria, lunchroom, classroom, or hallway. She invites them to food service-sponsored activities, tries to get familiar with topics and subjects they teach, and has cooking carts and supplies ready to go. She first chatted with teachers who were quickly receptive to her ideas and support. Word spread that she is a resource and other teachers began approaching her.

Obviously, it takes a special person to reach out to teachers and students as this director has—but there are many special people in the child nutrition field. She is willing to step outside a traditional role and has learned to feel comfortable working with students and teachers in classrooms. "Most of all," she says, "you have to have fun and enjoy the kids!"

Another way to encourage regular communication among current and potential partners is to invite participation in each other's meetings and training events.

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Let's Do Lunch

Teachers and child nutrition program staff at an elementary school in rural Pajaro Valley Unified School District eat lunch together on a weekly basis. The district's nutrition education specialist presents ideas and materials and models classroom lessons that connect with the child nutrition program.

Over one semester, teachers got ideas for presenting the Food Guide Pyramid to students and how it connects to the school lunch menu. They now read the menu to students, who categorize the menu items into the pyramid's food groups. The cafeteria staff display the Food Guide Pyramid poster in the hall where students line up for lunch. They've assembled a model of the pyramid at the end of the lunch line, arranged with the foods of the day.

Joint meetings or workshops can help with establishing and enforcing school policy, problem-solving, and providing fun, interactive educational activities for students and staff. Whatever the topic, these efforts often help partners to find win-win opportunities.

Finding Common Ground

Both teachers and food service staff at Summerville Elementary School were concerned about students' eating habits and the amount of food wasted in the cafeteria. With this common concern in mind, they asked the local Cooperative Extension Service (CES) to provide them with a joint in-service training workshop. They asked the CES agent to help them find ways to promote school lunches and encourage students to eat more and waste less.

As an “outsider,” the CES agent was able to present a wealth of information in a way that everyone at the workshop accepted (without feeling they had their toes stepped on). As a result, cooks and teachers came up with creative, concrete ways to improve students' nutrition awareness and food consumption. Students were surveyed about their favorite foods and now help design menus. The CES agent helped the menu planners fit student favorites into menus while still meeting nutrition standards.

Other positive changes resulted from this workshop. For example, chocolate milk is now a regular choice at lunch—kids like it and it has less fat than 2 percent unflavored milk. Fresh and canned fruits are offered as daily menu choices. In fact, the CES agent was so impressed by the efforts of cooks and teachers that she and her staff have become more involved at the school—gardens, cooking, and more!

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Activities that link classrooms and cafeterias can involve more partners than just classroom teachers and cafeteria employees. Consider also involving the following people in your efforts:

- Single-subject teachers (physical education, home economics, family life, science, and others) and those on special assignment (mentors, reading specialists, and others)
- Other classified staff, such as school nurses, custodians, and noon-time supervisors
- Administrators, including principals and their assistants, directors and supervisors or key departments, even superintendents (and/or their deputies and assistants)

Jimmy's Café

Teachers at Logan High School in the New Haven Unified School District now have a place they can go during conference/preparation periods to get a healthy bite to eat – and students are providing it. Special education

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teachers and the food services supervisor have worked together to develop a menu, prices, seating, and publicity. Teachers have incorporated food service, menu design, safety and sanitation, nutrition and customer service into their life skills classes. In the end, students, teachers, and child nutrition program staff benefit from this collaboration.

The following success story tells how one school went beyond the immediate school community and involved vendors in nutrition education. Keep in mind that similar business representatives, including commodity/food boards, and other “stakeholders” identified in Section 1, are potential partners.

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Milk Moustache Contest

Beware! At San Juan High School in Carmichael, you may see teachers’ photos on “wanted” posters. Look closer and you’ll see suspicious white marks on their upper lips. But don’t worry, they are just advertising a milk moustache contest and calcium promotion for students—a collaboration between food services staff, teachers, administration, a local milk supplier, and the Dairy Council of California.

Food service staff fostered teacher buy-in for the event at a before-school teacher training meeting, giving fruit smoothies and print materials as they entered, then a brief presentation. Teachers volunteered to be photographed with a milk mustache for Teacher Wanted Posters, and completed a calcium “sponge” activity. Teachers who used these “sponges” developed for several subject areas (language arts, history, geography, economics, math, and science) in their classes prior to the contest were rewarded with cow mugs, pens, or stress-ball key chains.

The contest was held during lunch on two days in the quad—the best location because it’s where kids hang out and is accessible to food services. The district milk supplier provided “Got milk?” posters and a booth for the contest. The Dairy Council provided a display of the amount of calcium in bones by age groups plus tear-off calcium information sheets. Students had to take a calcium quiz before they could have their picture taken for the student milk mustache contest. Students were given a copy of their picture and a “got milk” pencil.

A committee of teachers reviewed the pictures and the vice-principal gave final approval. Finalist pictures were displayed in the quad, and students voted for their favorites during “Spirit Week.” Winners were announced and prizes awarded at the homecoming rally.

Several districts have found it essential to designate someone at each school site to know about and be involved in nutrition education activities that connect classrooms with the cafeteria. Whether teachers or child

nutrition program staff or both, these key on-site partners can be supported with training, recognition, and rewards.

Successful classroom-cafeteria linkages often hinge on the attitudes and resulting behavior of the parties involved. The bottom line: stay positive and support each other for the common good of the students. Below are some specific actions for teachers, child nutrition program staff, and administrators, recommended by model nutrition education grantees and others promoting nutrition education.

Teachers: You can support the efforts of the child nutrition program by speaking only positive comments about school food in front of students. Following procedures important to the smooth operation of complex food service/child nutrition program also helps. Participate in cafeteria promotions and special events, such as all-school picnics, to show your support. Plan nutrition education activities and communicate your needs in advance to show that you recognize child nutrition staff as hard working professionals integral to the education process.

Child nutrition program staff know that you face numerous challenges daily. Open communication—short and to the point—can help both of you understand each others’ challenges. Simple but regular activities like talking with students about what they eat and why, or eating with students on occasion, can go a long way toward showing your support for school nutrition.

Dino Diner’s Club

Teachers participating in the SHAPE California program at Terra Bella Elementary School know it’s important to model healthy eating practices for their students. Each Monday they eat lunch in the cafeteria with their students. They call this the Dino Diner’s Club and invite all students to participate.

Students who want to join the club have their plates checked at the end of the lunch period. Students earn Dino Diner’s Club Card Points each time they try a new or featured food item (designated as the SHAPE food) or eat most of their lunch. Twice a year, students can purchase non-food prizes with their points, or save them for larger prizes, such as sports equipment at year’s end.

The Club provides an incentive for students to try new foods, which they seemed reluctant to do before. Middle school students who participated in the Club the previous year seem more willing to try new foods, and select foods from the school salad bar more often than other students.

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Child nutrition program staff: You can support teachers and all educational team members by publicizing the USDA’s *School Meals Initiative for Healthy Children* and local efforts to improve the healthfulness of school meals. Teachers’ perceptions of school meals may be misguided only because you haven’t tooted your own horn! It may also help to promote understanding if you explain the logistical processes involved in serving school meals, and why a team effort is so critical.

Always invite teachers and administrators to the cafeteria, for nutrition-related events or “just because” (but be sure to give them plenty of advance notice!). Encourage your coworkers to think of themselves as part of the educational team. Even with minimum training, child nutrition program staff can and do teach students about nutrition, both in daily conversations and through special events.

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If I Can Do It, You Can!

Interested child nutrition program staff in the Vacaville Unified School District are offered a small stipend and training to become SHAPE Child Nutrition Partners (SCNP). These SCNPs are designated as the liaison between the child nutrition program and all nutrition education activities at their school site. One of their key tasks is to train fellow child nutrition program staff in presenting nutrition education to students.

Using Cafeteria Nutrition Education Theme Kits (lesson plans and materials compiled by the child nutrition director, a consultant, and staff), the SCNPs model a cafeteria-based nutrition activity. The experience of seeing their co-worker do this really bolsters the self-confidence of staff who do not consider themselves educators.

SCNPs are also in charge of coordinating use of the school cooking carts, working with the school site’s garden coordinator to promote produce on salad bars, and a host of other duties. While the \$150 stipend covers only a tiny fraction of the time the SCNPs spend promoting nutrition, they are rewarded with the success of the programs.

Administrators: You can support classroom-cafeteria collaborations by allowing time for interaction between and training of classroom and cafeteria staff. Teachers may feel isolated in their classrooms, and knowing that the food service staff are potential resources can be a big help. Approving school-wide nutrition events and verbalizing your support for nutrition education to parents and all school staff are other ways you can encourage linkages. Don’t forget to model healthy behavior, including being present—and even eating—where school meals are served. And an obvious (but not always implemented) sign of support for student achievement is to schedule enough time for students to eat their lunch.

District-level administrators, especially, can play a key role in developing, implementing, and enforcing policies pertaining to nutrition and health. One way to do so is to make adherence to such policies part of the site administrators' yearly evaluation. Another way of supporting the link between classrooms and cafeterias is to mobilize resources, such as money, curriculum, food, or personnel. Seek to foster the sharing of activities—school to school, teacher to teacher, and child nutrition program to teacher. For example, support school-wide staff development days that promote collaboration between teachers and child nutrition program staff. Model cooperation and collaboration among departments at the district level, such as business services and curriculum.

Students: It's important to involve students of all ages in their own education. More schools are establishing or tapping into student committees to help promote nutrition. Some schools have formed NAC (Nutrition Advisory Council), SNAC (Student Nutrition Advisory Committee) or FANS (Food and Nutrition for Students) groups to foster classroom-cafeteria alliances. Some groups piggyback on existing activities such as National Nutrition Month or National School Lunch Week. Others come up with their own promotions, such as offering lunchtime games with incentives. Student groups can also help seek donations, presentations and product assessment tools or activities from food vendors.

NAC Activities

On one middle school campus in the Hawthorne School District, students are proud to serve on the Nutrition Advisory Council (NAC). They help plan and carry out events to promote school breakfast to their peers. They staff the NAC Shack, where students can buy healthy snacks during breaks.

The students bring lots of ideas and energy to their NAC meetings. But key to their success is the coordinator of their activities: a nutrition education assistant (NEA). A nutrition/food service employee with lots of imagination and energy, the NEA began working part-time with NAC members: attending meetings, supervising the NAC Shack, planning and implementing activities, and acting as liaison between the cafeteria staff and teachers.

The NEA position was funded initially by a grant. But if meal participation stays high (thanks in part to NAC efforts), funding for the position can become part of the regular child nutrition program budget. The NEA's success can also be credited to a teacher who partners with her, and the fact that she likes to and works well with students. Communication and cooperation are critical to the success of this powerful classroom/cafeteria link.

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The possibilities are practically endless, and support is available through the American School Food Service Association's NAC section and at the NAC Food Fair at the California School Food Service Association's annual conference.

Parents: Many schools have found that everyone benefits when parents are invited to become involved in classrooms and cafeterias. Not only do they learn firsthand about what their child is learning and eating, but they often become tremendous advocates for child nutrition programs and nutrition education in schools.

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Kitchen Tours

Over 165 first, third, and fifth grade classes take a field trip to the Elk Grove Unified School District's Food Processing Center every year. For an hour, 60 students at a time (in groups of 20), joined by teachers and parents, get a one-hour glimpse behind the scenes of school meal programs. They learn something along the way, of course, in three components: a tour of the food preparation area, a nutrition education lesson, and a taste-testing activity.

Field trips are adapted for each grade level and emphasize a different area:

- First graders focus on food production and the *Food Guide Pyramid*, with help from SHAPE-a-ROO, the district mascot. Students learn about the food groups and classify foods.
- The third-graders' tour is about menu-planning and transportation. The district's computerized menu-planning system and key players in the process are introduced. Using their menu planning knowledge, student groups use food photo cards to develop a school lunch menu.
- The fifth grade tour emphasizes food-related careers. People in different jobs in the Food Services Department, such as an accountant, a food service supervisor, the receptionist, or even the director, briefly share their job responsibilities and answer questions.

Evaluations are almost always positive. Students liked the cookie machine (and tasting the results at tour's end)—second only to the huge walk-in freezer. Teachers say it's "one of the best field trips I've seen" and "my students were excited to see where their lunches came from." Parents are frequently impressed with the meal quality and cleanliness of the center. Child nutrition program staff believe that the tours are an excellent marketing tool. The tours also provide them with insight into classroom teaching and individual teacher's nutrition knowledge—valuable information for planning teacher workshops.

Tour alternatives are available for other grade levels: Second grade students view a video of the Food Production Center and follow school lunches from arrival at their school through meal service. Fourth graders visit the local Farmers' Market, and students in sixth grade tour the local milk processing plant.

With encouragement and education, parents can support nutrition education in classrooms and cafeterias in myriad ways. For example, they can:

- Participate in surveys and events: school-wide, classroom, and field trips.
- Post school menus at home and review them with children.
- Eat at school with their children.
- Talk to students about food choices and making healthy choices.
- Encourage lunch money to be spent on lunch and/or prepay for lunches.
- Communicate to administrators their support of school meal programs.
- Model healthy eating habits at home, to reinforce what children are learning in the classroom.
- Help in classrooms and cafeterias and with homework assignments.
- Contribute healthy snacks or other foods for classroom celebrations.

More Strategies to Try

Teachers:

- Provide healthy food (e.g., fruit instead of candy) or non-food incentives for student achievement.
- Schedule lesson plans that involve the cafeteria, e.g., menu planning. Inform child nutrition staff of grade specific and site specific activities, especially large projects/classroom events where child nutrition staff can build on natural links and fill a need.
- Conduct a food essay or poetry contest. (Millville School District)
- Help students publish a school cookbook, with parents helping students contribute recipes. (Pixley Union School District)

Child Nutrition Program Staff:

- Feed the teachers, too. Be as flexible as possible when planning adult food services: menus, schedules, and pricing, for example. Do special teachers' lunches on a regular basis. Market meals to teachers to improve perceived dollar value and nutritional value of school lunch. Identify healthier menu choices.
- Look for opportunities to get involved in classroom and school-wide activities or sporting events. Provide rainy day nutrition education activities, videos, and resources. Let teachers know what food commodities are available for their classes. Work with the physical education department during physical testing and training/competition to promote performance foods, e.g., package and sell food packets to athletes on game day to take on the road.
- Create and promote a nutrition mascot. (Elk Grove Unified School District)
- Arrange for students to help with special projects. Pixley Union School District enlisted the help of students to put together "goodie bags" for their community health and nutrition fair. While students helped, staff reviewed practical math skills (calculating the number of bags needed, number of items in each bag, and so on) with students.

Resources for Linking Classroom and Cafeteria

Statewide

- California Department of Education, Nutrition Services Division, (916) 322-4792 or (800) 952-5609 (www.cde.ca.gov/nsd/nets):
 - *Better Breakfast, Better Learning* (1994). A booklet describing the positive impact eating breakfast has on academic performance.
 - *Strategies for Success: A Resource Manual for SHAPE California Child Nutrition Programs*. Section 4: Building Partnerships and Section 6: Promoting Nutrition Education
 - *Eat Well, Learn Well* (1995). A booklet highlighting the importance nutrition plays in preparing children to learn.
- California Healthy Kids Resource Center (www.californiahealthykids.org):
 - *Classroom Cafeteria Capers* (Genesee Intermediate School District, Flint, MI)
- Dairy Council of California (www.dairycouncilofca.org)—interactive on-line activities for students
- *Recipes for Success: Nutrition and Physical Activity Programs for Youth*. Berkeley: California Adolescent Nutrition and Fitness (CANFit) Program, 1998 (www.canfit.org, Resources section)

Nationwide

- AIMS Education Foundation (888) SEE-AIMS (www.aimsedu.org)
Super Tuber (1987)—lesson plan and resources for Potato Project
- Nutrition Advisory Council (NAC) planning tools from the American School Food Service Association (www.asfsa.org/morethanschoolmeals/nac)
 - Planning calendar
 - Poster contests, mascot contests
 - Information on how to make NAC groups work
 - Demographic survey
- USDA's Team Nutrition materials: (800) 321-3054 (www.fns.usda.gov/tn)
 - *10 Steps for Parents—Healthy Eating at School*
 - Lunchroom links in *Food Time, Food Works* lessons
 - *Changing the Scene: Improving the School Nutrition Environment* (a resource kit)

APPENDICES

SHAPE California Model Nutrition Education Grants (1998 – 2000)

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